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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/024,252	12/21/2001	Pk Haridass Krishnamoorthy	01-ASD-226 (GT)	3333
200	7590	06/28/2004	EXAMINER	
EATON CORPORATION EATON CENTER 1111 SUPERIOR AVENUE CLEVELAND, OH 44114			RIVELL, JOHN A	
			ART UNIT	PAPER NUMBER
			3753	

DATE MAILED: 06/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/024,252

Applicant(s)

KRISHNAMOORTHY ET AL

Examiner

John Rivell

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 6/02/04 (RCE).
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 24-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 24-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on June 2, 2004 has been entered.

Claims 1-23 have been canceled. New claims 24-31 have been entered and are pending.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 24, 27, 29 and 30 are rejected under 35 U.S.C. §102 (b) as being anticipated by Benjay et al (U.S. Pat No. 5,421,199).

The patent to Benjay et al ('199) discloses "a one-way valve assembly (generally at seal door 22) for a fuel tank filler neck (12) comprising: (a) a tubular shell (14a) having a valve seating (at seal 30) surface formed about one end thereof and a portion on the end opposite said one end and adapted for insertion in the end of an existing filler neck (12); (b) a moveable valve member (seal door 22) disposed for pivotal movement with respect to said one end of said tubular shell (14a), (c) a spring (34) operative for biasing said valve member (22) to a position closed on said valve seating surface (seal 30); and, (d) a flexible annular seal (seal element 30) disposed to seal between said valve

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member and said valve seating surface, said valve member having deflector (nozzle contacting surface 35) surfaces thereon operable to provide a camming action for effecting said pivotal movement of said valve member and operable, upon insertion of a siphon hose into said tank filler neck, for preventing said tube ("tube" should read -- hose --) as it effects said pivotal movement and passes further into said filler neck from contacting said annular seal" as recited.

Concerning the recitation "...operable to provide a camming action for effecting said pivotal movement of said valve member and operable, upon insertion of a siphon hose into said tank filler neck, for preventing said tube as it effects said pivotal movement and passes further into said filler neck from contacting said annular seal" this language is interpreted as suggestive or optional in that it does not require, for example, insertion of a siphon hose. Rather, the language defines the function of the claimed structure as a condition of insertion of a siphon hose.

As such upon insertion of a siphon hose in the filler neck of Benjay et al ('199) the interaction of the end of the inserted siphon hose with the contacting surface 35 will, in concert with effecting pivotal movement of the valve from a closed position to an open position, as well as deflect the end of the siphon hose away from the sealing surface as the siphon hose is inserted into the filler neck in a manner similar to how the insertion of the fuel nozzle effects pivotal movement and deflection of the sealing element away from the fill nozzle end.

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Regarding claim 27, in Benjay et al ('199), "said spring (34) comprises a torsion spring with a coil portion thereof received in a slot (between hinge supports 33) formed in the tubular shell (14a)" as recited.

Regarding claim 29, in Benjay et al ('199), "said valve member (22) includes a pair of arms (46, 47; fig. 3) extending therefrom with end portions thereof pivotally engaging (via hinge pin 32) said tubular shell (14a)" as recited.

Regarding claim 30, in making and/or using the device of Benjay et al ('199) one necessarily performs "a method of making a one-way valve assembly (22) for a fuel tank filler neck (12) comprising: (a) forming a tubular member (14a) with a valve seating surface (at seal 33) about one end thereof and forming a portion on the end opposite said one end adapted for insertion in the end of an existing filler neck (12); (b) disposing a valve member (22) for pivotal movement with respect to said one end of said tubular member, (c) biasing said valve member with a spring (34) toward a position closed on said valve seating surface; (d) disposing a flexible annular seal (33) between said valve member and said valve seating surface; and, (e) forming deflector surfaces (at surface 35) on said valve member and upon insertion of a siphon hose in said tubular member camming said end of said hose against said deflector surfaces and effecting said pivotal movement and preventing contact of said hose against said annular seal as said hose is further inserted" as recited.

Here again, the recitation concerning "... upon insertion of a siphon hose in said tubular member camming said end of said hose against said deflector surfaces and effecting said pivotal movement and preventing contact of said hose against said

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annular seal as said hose is further inserted" is interpreted as suggestive or optional in that it does not require, for example, insertion of a siphon hose. Rather, the language defines the function of the claimed structure as a condition of insertion of a siphon hose.

As such, in Benjay et al ('199), interaction of the surface 35 with the end of an inserted siphon hose will effect pivotal movement of the valve to an open position as well as deflect the end of the inserted siphon hose away from the sealing element 33.

Claims 24, 26, 30 and 31 are rejected under 35 U.S.C. §102 (b) as being anticipated by Morris et al.

The patent to Morris et al., in figures 4 and 5, discloses "a one-way valve assembly (20) for a fuel tank filler neck (12) comprising: (a) a tubular shell (52) having a valve seating surface (wall 16 at opening 18) formed about one end thereof and a portion on the end opposite said one end and adapted for insertion in the end of an existing filler neck; (b) a moveable valve member (20) disposed for pivotal movement with respect to said one end of said tubular shell, (c) a spring (82) operative for biasing said valve member to a position closed on said valve seating surface; and, (d) a flexible annular seal (cross hatched as plastic or rubber attached to the valve element 20) disposed to seal between said valve member and said valve seating surface, said valve member having deflector surfaces (the inlet facing dome shape of the valve element 20) thereon operable to provide a camming action for effecting said pivotal movement of said valve member and operable, upon insertion of a siphon hose into said tank filler neck, for preventing said tube as it effects said pivotal movement and passes further into said filler neck from contacting said annular seal" as recited

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As noted above the recitation "...operable to provide a camming action for effecting said pivotal movement of said valve member and operable, upon insertion of a siphon hose into said tank filler neck, for preventing said tube as it effects said pivotal movement and passes further into said filler neck from contacting said annular seal" this language is interpreted as suggestive or optional in that it does not require, for example, insertion of a siphon hose. Rather, the language defines the function of the claimed structure as a condition of insertion of a siphon hose.

As such upon insertion of a siphon hose in the filler neck of Morris et al. the interaction of the end of the inserted siphon hose with the inlet facing dome surface on valve 20 will, in concert with effecting pivotal movement of the valve from a closed position to an open position, as well as deflect the end of the siphon hose away from the sealing surface as a siphon hose is inserted into the filler neck in a manner similar to how the insertion of the fuel nozzle effects pivotal movement and deflection of the sealing element away from the fill nozzle end.

Regarding claim 26, in Morris et al., "said annular seal (as illustrated in Morris et al.) is attached to said valve member (20) for movement therewith" as recited.

Regarding claim 30 in making and/or using the device of Morris et al. one necessarily performs "a method of making a one-way valve assembly (valve 20) for a fuel tank filler neck (12) comprising: (a) forming a tubular member (52) with a valve seating (opening 18 in wall 16) surface about one end thereof and forming a portion on the end opposite said one end adapted for insertion in the end of an existing filler neck (12); (b) disposing a valve member (20) for pivotal movement with respect to said one

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end of said tubular member, (c) biasing said valve member with a spring (82) toward a position closed on said valve seating surface; (d) disposing a flexible annular seal (cross hatched as plastic or rubber attached to the valve element 20) between said valve member (20) and said valve seating surface; and, (e) forming deflector surfaces (the inlet facing dome shape of the valve element 20) on said valve member (20) and upon insertion of a siphon hose in said tubular member camming said end of said hose against said deflector surfaces and effecting said pivotal movement and preventing contact of said hose against said annular seal as said hose is further inserted" as recited.

As noted above the recitation "... operable to provide a camming action for effecting said pivotal movement of said valve member and operable, upon insertion of a siphon hose into said tank filler neck, for preventing said tube as it effects said pivotal movement and passes further into said filler neck from contacting said annular seal" this language is interpreted as suggestive or optional in that it does not require, for example, insertion of a siphon hose. Rather, the language defines the function of the claimed structure as a condition of insertion of a siphon hose.

As such upon insertion of a siphon hose in the filler neck of Morris et al. the interaction of the end of the inserted siphon hose with the inlet facing dome surface on valve 20 will, in concert with effecting pivotal movement of the valve from a closed position to an open position, as well as deflect the end of the siphon hose away from the sealing surface as a siphon hose is inserted into the filler neck in a manner similar to



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how the insertion of the fuel nozzle effects pivotal movement and deflection of the sealing element away from the fill nozzle end.

Regarding claim 31, in Morris et al., "said step of disposing a flexible annular seal includes disposing the seal on said valve member (as shown in figures 4 and 5) for pivotal movement therewith" as recited.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Benjay et al ('199) or Morris et al. in view of Goto et al. (U.S. Pat. No. 5,887,615)

The patents to Benjay et al ('199) or Morris et al. disclose all the claimed features with the exception of having the valve member "mounted on said spring for limited lost motion for self alignment"

The patent to Goto et al. ('615) discloses that it is known in the art to employ a pivotal check valve element at 2, mounted on a pivot hinge 18 which hinge is mounted in a slot 20 for the purpose of permitting the valve element to move longitudinally prior to pivoting to an open position which also permits the valve to align itself with the seat upon closure.

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It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Benjay et al ('199) or Morris et al., a hinge pin mounted in a slot to mount the pivoting valve of each for the purpose of permitting the valve element to move longitudinally prior to pivoting to an open position which also permits the valve to align itself with the seat upon closure as recognized by Goto et al. ('616).

Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Benjay et al ('199) or Morris et al. view of Bartholomew.

The patents to Benjay et al ('199) or Morris et al. disclose all the claimed features with the exception of having "interspersed... electrically conductive material for facilitating discharge of accumulated static electrical charge".

The patent to Bartholomew discloses that it is known in the art to employ interspersed electrically conductive material throughout the fuel filler neck 54 and vent hose 58 (see column 4, lines 33-58) for the purpose of preventing the buildup of static electricity which further reduces the chances of premature explosions.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Benjay et al ('199) or Morris et al., interspersed electrically conductive material throughout the fuel filler necks of each for the purpose of preventing the buildup of static electricity which further reduces the chances of premature explosions as recognized by Bartholomew.


The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Rivell whose telephone number is (703) 308-2599. The examiner can normally be reached on Mon.-Thur. from 6:30am-5:00pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Scherbel can be reached on (703) 308-1272. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
**John Rivell**  
**Primary Examiner**  
**Art Unit 3753**

j.r.